

What is claimed is:

1. A method, comprising:
detecting an expression profile of at least one gene in a biological sample of a subject; and
comparing said expression profile to a reference expression profile of said at least one gene to detect or monitor an autoimmune disease in said subject,
wherein said at least one gene is differentially expressed in pre-symptomatic lupus-affected or -predisposed tissues as compared to disease-free tissues.
2. The method of claim 1, wherein said at least one gene is differentially expressed in early-stage lupus-affected tissues as compared to said disease-free tissues.
3. The method of claim 2, wherein said at least one gene is over-expressed in both said pre-symptomatic tissues and early-stage lupus-affected tissues as compared to said disease-free tissues.
4. The method of claim 3, wherein said at least one gene includes one or more genes selected from Table 1.
5. The method of claim 2, wherein said at least one gene includes one or more genes selected from Table 5b.
6. The method of claim 2, wherein said subject is a human.
7. The method of claim 6, wherein said autoimmune disease is lupus nephritis (LN) or systemic lupus erythematosus (SLE).
8. The method of claim 2, wherein said expression profile and said reference expression profile are determined by RT-PCR or immunoassays.
9. The method of claim 2, wherein said pre-symptomatic, early-stage lupus-affected, and disease-free tissues are human kidney tissues.
10. A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and at least one active component selected from the group consisting of:
a polypeptide encoded by a gene which is differentially expressed in pre-symptomatic lupus-affected or -predisposed tissues as compared to disease-free tissues;
a variant of said polypeptide; and
a polynucleotide encoding said polypeptide or said variant.
11. The pharmaceutical composition of claim 10, wherein said pharmaceutical composition is a vaccine formulation capable of eliciting an immune response against a lupus-affected or lupus-predisposed human cell or a component thereof, and wherein said

gene is selected from Table 1.

12. A method comprising administering a therapeutically or prophylactically effective amount of said pharmaceutical composition of claim 10 to a subject in need thereof.

13. A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and at least one active component selected from the group consisting of:

an agent capable of modulating the expression of a gene which is differentially expressed in pre-symptomatic lupus-affected or -predisposed tissues relative to disease-free tissues;

an agent capable of binding to, or modulating a biological activity of, a polypeptide encoded by said gene; and

a T cell activated by said polypeptide.

14. The pharmaceutical composition of claim 13, wherein said active component is selected from the group consisting of:

a polynucleotide comprising or encoding an RNA that is capable of inhibiting or decreasing the expression of said gene by RNA interference or an antisense mechanism;

an antibody specific for said polypeptide; and

an inhibitor of the biological activity of said polypeptide,

wherein said gene is over-expressed in said pre-symptomatic tissues relative to said disease-free tissues.

15. The pharmaceutical composition of claim 14, wherein said gene is selected from Table 1.

16. A method comprising administering a therapeutically or prophylactically effective amount of said pharmaceutical composition of claim 15 to a human who has or is predisposed to SLE or LN.

17. The pharmaceutical composition according to claim 15, wherein said active component is a polynucleotide comprising or encoding an siRNA directed to a target sequence selected from Table 3.

18. A diagnostic kit comprising:

a polynucleotide capable of hybridizing under stringent or highly stringent conditions to a sequence selected from SEQ ID NOS:1-29, or the complement thereof; and

an antibody specific for a polypeptide selected from SEQ ID NOS:30-57.

19. A method comprising:

contacting an agent with lupus-affected or lupus-predisposed cells;

comparing expression profiles or protein activities of at least one gene in said cells before and after said contacting to determine if said agent modulates expression or protein activity of said at least one gene,

wherein said at least one gene is differentially expressed in lupus-affected or lupus-predisposed cells as compared to disease-free cells.

20. A method comprising:

administering an agent to a lupus-affected or lupus-predisposed subject;

comparing expression profiles or protein activities of at least one gene in biological samples of the subject before and after said administering to determine if said agent modulates expression or protein activity of said at least one gene in the subject,

wherein said at least one gene is differentially expressed in lupus-affected or lupus-predisposed kidney tissues as compared to disease-free kidney tissues.